

Types of pluractionality and plurality across domains in ʔayʔajuθəm

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Introduction

ʔayʔajuθəm (Comox-Sliammon) is a Central Salish language spoken in BC, Canada. There are an estimated 47 L1 speakers (FPCC 2018).

Unmarked predicates can have either singular or plural reference in both the nominal and verbal domains. **C₁C₂ reduplication** and **ablaut** can both mark event plurality. **C₁C₂ reduplication** also marks plurality in the nominal domain.

(1) a. Context: *M. rips two pieces of paper to write notes.*

saʔa pipa pəχ-t-əm Marianne
two paper rip-CTR-PASS Marianne
'Marianne ripped two pieces of paper.'



b. ti~titul pəp~pipa p<a>χ-at-as
PL~small C₁C₂.PL~paper rip<ABL.PL>-CTR-3ERG
'She ripped lots of little pieces of paper.'

We assume a lattice structure in the domain of events and the domain of entities (e.g. Krifka 1989, 1992; Landman 2000; Lasersohn 1995; Link 1998). **C₁C₂ reduplication** refers to a sum of distinct event atoms/a sum of entities. It indicates event-external pluractionality.

In contrast, **ablaut** forms an atomic event made up of multiple subevents, similar to group nouns in English. It indicates event-internal pluractionality.

ʔayʔajuθəm pluractionals provide evidence that event-internal pluractionals parallel group nouns, while event-external pluractionals parallel ordinary plurals (Wood 2007; Henderson 2017).

Ablaut: Event-Internal, Grouped Plurals

Ablaut occurs with telic predicates and with atelic predicates that involve punctual repeatable events. It is not found with bare states or homogenous activities; it must be able to map to distinct event atoms. **Ablaut** pluractionals cannot be satisfied by a simple plurality of events. Actions must be grouped into a single larger event. The nature of the grouping is partially determined by the aktionsart of the predicate and partially determined by context, involving notions like shared telos, participants, time, or space (cf. Wood 2007).

Multiple cutting events in (9) are not sufficient unless the events are grouped around using up the object. In (10), a common goal is also important, but involves intention and shared time and space. (11) involves grouped participants.

(9) k<a>p-at-as-uf. Root: kəp- 'to get cut (with scissors)'

CUT<ABL.PL>-CTR-3ERG-PST

'She cut it up (with scissors).'

✓ context 1: *There's a piece of paper that's been totally cut into pieces.*

x context 2: *There's a piece of paper with multiple cuts around the edges.*

x context 3: *There are different colored ribbons, with a length cut from each.*

(10) λ<a>s-at-as Root: λəs- 'to get punched'

punch<ABL.PL>-CTR-3ERG

'She punched it up.'

✓ context 1: *Somebody is punching a punching bag for a workout.*

x context 2: *Someone is intermittently punching for someone's attention.*

(11) p<a>λ<i>šš Root: pəλšš- 'to rise to the surface'

rise.to.surface<ABL.PL>

'They surfaced.' /# 'He keeps surfacing.'

✓ context 1: *A flock of ducks coming to the surface.*

x context 2: *A swimmer repeatedly coming up for air.*

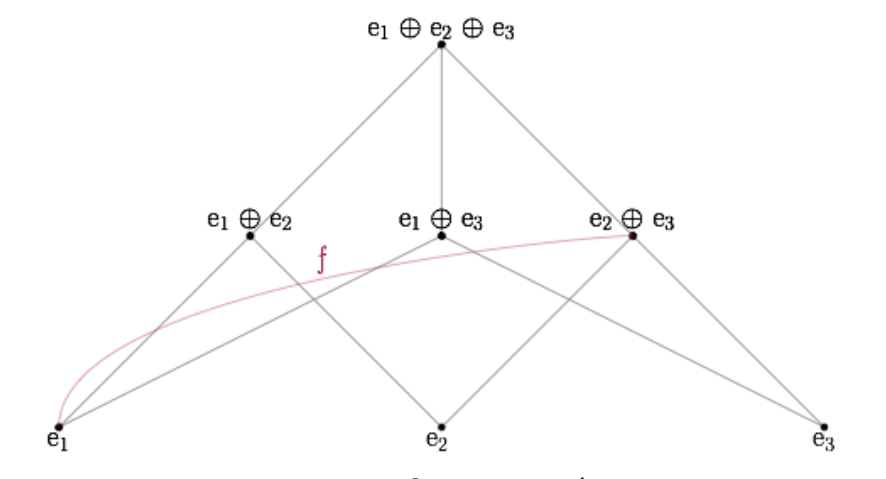


Figure 1. The membership function (based on Barker 1992:77).

The denotation for **ablaut** must involve multiple events that satisfy the singular predicate, but events must be grouped into a single larger event that is not simply a sum of the individual events. In (12), an atomic event is mapped to the sum of events that constitute it by a contextually-given membership function, where each constituting event e' satisfies the predicate.

(12) $[[\langle a \rangle]]^g = \lambda P_{\langle e,t \rangle} \lambda e [\text{atom}(e) \wedge \forall e' [e' \Pi f_i(e) \rightarrow P(e')]]$

We adapt Henderson's (2017) analysis of event-internal pluractionals, using a membership function (based on Barker's 1992 treatment of group nouns), which we propose can be based on notions like shared telos, as well as shared time and space. The Kaqchikel pluractionals that Henderson analyzes involve large numbers of temporally contiguous repetitions; the temporal configuration is thus analogous to the spatial configuration of 'swarm'-type nouns. **Ablaut** pluractionals may apply to as few as two repetitions of the event and may involve temporal distribution if the events are still grouped into a larger whole.

(13) h<a>kw-at-əm Gloria saʔa tayš

hang.out<ABL.PL>-CTR-PASS Gloria two blanket

'Gloria hung out two blankets.'

(14) ʔukw č<a>t-at-as dʷəyχ

all cut<ABL.PL>-CTR-3ERG wood

'He cut the wood all up.'

Context: *Someone cut up a tree. It took him several days to cut it all up.*

This makes them more analogous to 'committee'-type nouns, which do not require a particular spatial configuration or a large number of members. However, subevents of an **ablaut** pluractional must fall within the temporal-spatial trace of the group event; they do not exist independently in space and time, unlike the individuals constituting a 'committee-type' noun. We take this to fall out from the ontological differences between individuals and events.

C₁C₂ Reduplication: Event-External, Spatio-Temporally Distributed Plurals

C₁C₂ reduplication indicates a sum of events that must be distributed in time and space and can be distributed over multiple objects.

(2) a. θəxw~θəxw-ʔəm b. qəxw~qəxw-t-as c. yəm~yəm-t-əm Henry Bruno
C₁C₂.PL~stab-A.INTR C₁C₂.PL~pound-CTR-3ERG C₁C₂.PL~kick-CTR-PASS Henry Bruno
'She is going around stabbing people.' 'He is pounding (multiple piles in).'

Examples (3) and (4) show that events must be distributed in **both** time and space.

(3) Context: *I tell you to just wait a moment as we get ready to leave...* (4) Context: *You have a view of a city as it gets dark and see lights coming on, here and there.*
Context: *I press a button on my keys to lock all the doors of my car.* # Context: *Streetlights all coming on at the same time.*
lək~ləkl-it=č tə=ʔimin χwəw~χwəw
C₁C₂.PL~lock-CTR=1SG.SUBJ DET=door C₁C₂.PL~turn on
'I'm locking the doors.' 'They're coming on.'

It is compatible with activities, achievements, and accomplishments, but not states; it must pluralize events. **C₁C₂ reduplicated** activities show that subevents may be contiguous, resembling one extended, spatio-temporally distributed event (5a), as long as there is distribution in space (5b).

(5) a. Context: *I walked around campus and back to my residence without stopping.* b. Context: *We're walking from here to the gym...*
ʔəm~ʔim-aš-uf=č ʔi xwə=č qəkw-əm=an # ʔəm~ʔimaš=št
C₁C₂.PL~walk-PST=1SG.SUBJ CNJ NEG=1SG.SUBJ stop-MDL=1SG.CONJ C₁C₂.PL~walk=1PL.SUBJ
'I went for a walk and I didn't stop.' 'We're walking.' (✓ for 'We're walking around')

We analyze **C₁C₂ reduplication** as event-external pluractionality, adapting the denotation from Lasersohn (1995:252).

(6) Formal Analysis: $[[C_1C_2]] = \lambda e \lambda P_{\langle e,t \rangle} [*P(e) \& \forall e', e'' \Pi e - [\tau(e') \circ \tau(e'')] \& \neg [\sigma(e') \circ \sigma(e'')]]$

C₁C₂ reduplication also applies in the nominal domain. In both domains, it creates a plurality of distinct atoms. Applying (6) in the nominal domain raises problems because entities can exist at the same time, and distinct entities will trivially satisfy the spatial distribution requirement. We propose that temporal and spatial distribution requirements apply only when the atoms are events and arise because events are individuated by their spatial and temporal traces (Henderson 2017). The denotation applies differently in the two domains due to ontological differences in how events and entities exist as distinct atoms.

(7) a. mimaw 'cat' məm~mimaw 'cats' b. θək'načtan 'chair' θəkw~θək'načtan 'chairs'

(8) $[[C_1C_2]] = \lambda x \lambda P_{\langle e,t \rangle} [*P(x)]$

Comparison and Discussion

The pluractionals can apply to the same root. **C₁C₂ reduplication** occurs if events are distributed, while **ablaut** occurs if multiple events are grouped into a larger whole.

Context	<i>Different colored ribbons, with a length cut from each.</i>	<i>A piece of paper has been cut into pieces.</i>
C₁C₂ Reduplication	kəp~kəp-t-as C ₁ C ₂ .PL~cut-CTR-3ERG 'She cut them.'	# kəp~kəp-t-as
Ablaut	# k<a>p-at-as	k<a>p-at-as CUT<ABL.PL>-CTR-3ERG 'She cut it up.'

Conclusions

- ʔayʔajuθəm pluractionals provide evidence that event-internal pluractionality involves groups of events and event-external pluractionality involves sums of events (Wood 2007, Henderson 2017).
- ʔayʔajuθəm uses the same morpheme (**C₁C₂ reduplication**) to mark the same type of plurality in both the nominal and verbal domain, providing morphological evidence for parallel structure in the domain of entities and events.
- ʔayʔajuθəm **ablaut** pluractionals show that group event membership may be determined through notions like shared telos rather than spatio-temporal configuration. This is more akin to 'committee'-type group nouns than 'swarm'-type group nouns, showing further parallels between the domain of entities and events in the way that plurals and groups are formed.
- The data highlight differences in the ontology of events and entities in how they exist as distinct atoms.

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